Sun and Moon

1-3 The student will demonstrate an understanding of the features of the sky and the patterns of the Sun and the Moon. (Earth Science)

NOTE TO TEACHER: It is essential to keep this unit as basic as possible. Do not go beyond the recommendations since a child at this age is not developmentally ready to understand astronomy concepts. They will take the foundational knowledge they learn at this grade and expand on it in 4th grade.

1-3.4 Illustrate changes in the Moon's appearance (including patterns over time).
Taxonomy level: 2.2-B Understand Conceptual Knowledge

Previous/Future knowledge: This is the first time that students have been introduced to the concept of the Moon's changes. Students have investigated patterns in kindergarten. This is foundational knowledge that will be further developed in 4th grade (4-3.6) when students illustrate the phases of the Moon and the Moon's effect on ocean tides. In 8th grade (8-4.4), students will explain the motions of Earth and the Moon and the effects of these motions as they orbit the Sun (including day, year, phases of the Moon, eclipses, and tides).

It is essential for students to know that the Moon's appearance changes over time.

- The Moon is a ball of rock that moves around Earth.
- The Moon goes around Earth about once every month.
- The Moon does not make its own light.
- We see the Moon because the Sun's light shines on it.
- As the Moon moves around Earth, it appears to change shape. For example, we can see the entire Moon, part of the Moon, or none of the Moon.
- The appearance of the Moon changes shape in a regular pattern each month.

It is not essential for students to collect data on other objects in the night sky, such as planets, or name the phases of the Moon.

Assessment Guidelines:
The objective of this indicator is to *illustrate* patterns of change in the Moon's appearance; therefore, the primary focus of assessment should be to use pictures, diagrams, or words to show aspects of these changes. However, appropriate assessments should also require students to *classify* by sequencing the patterns observed.